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### Abstract of the Invention

5 A system and method for monitoring the creation of semiconductor features with multi-slope profiles by employing scatterometry is provided. The system includes a wafer partitioned into one or more portions and one or more light sources, each light source directing light to one or more devices etched on a wafer, the devices having multi-sloped profiles. Reflected light is collected and converted into data by a measuring system. The data is indicative of the etching at the one or more portions of the wafer. The measuring system provides the data to a process analyzer that determines whether adjustments to etching components are necessary by comparing the data to stored etch parameter values. The system also includes etching components. At least one etch component corresponds to a portion of the wafer and performs the etching thereof. The process analyzer selectively controls the etch components to promote consistent etching of multi-slope profiles/features to compensate for wafer to wafer variations.

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